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Art Unit: 1634
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AMENDMENT AND RESPONSE TO RESTRICTION REQUIREMENT

In the claims

1. (original) A method of determining the susceptibility of a human patient to prostate cancer comprising the steps of (i) obtaining a sample containing nucleic acid and/or protein from prostate cells of the patient; and (ii) determining whether the sample contains a level of Pax 2 nucleic acid or protein associated with prostate cancer.

2. (original) A method of diagnosing prostate cancer in a human patient comprising the steps of (i) obtaining a sample containing nucleic acid and/or protein from prostate cells of the patient; and (ii) determining whether the sample contains a level of Pax 2 nucleic acid or protein associated with prostate cancer.

3. (original) A method of predicting the relative prospects of a particular outcome of prostate cancer in a human patient comprising the steps of (i) obtaining a sample containing nucleic acid and/or protein from prostate cells of the patient; and (ii) determining whether the sample contains a level of Pax 2 nucleic acid or protein associated with prostate cancer.

4. (currently amended) A method according to any ~~one of claims 1 to 3~~ of claims 1, 2 or 3 wherein the cancer is invasive.

5. (currently amended) A method according to any ~~one of the preceding claims~~ of claims 1, 2 or 3 wherein the sample contains nucleic acid and the level of Pax 2 nucleic acid is measured by contacting the nucleic acid with a nucleic acid which hybridises selectively to Pax 2 nucleic acid

6. (original) A method according to claim 5 wherein the sample contains mRNA and the nucleic acid selectively hybridises to Pax 2 mRNA.

7. (currently amended) A method according to claim 5 ~~or 6~~ wherein the nucleic acid which hybridises is detectably labelled.

8. (currently amended) A method according to ~~any one of claims 5 to 7~~ claim 5 wherein the nucleic acid which selectively hybridises is detectably labelled.

9. (currently amended) A method according to ~~any one of claims 5 to 8~~ claim 5 wherein the nucleic acid which selectively hybridises is suitable for use in a nucleic acid amplification reaction.

10. (currently amended) A method according to any ~~one of claims 1 to 4~~ of claims 1, 2 or 3 wherein the sample contains protein and the level of Pax 2 protein is measured.

11. (original) A method according to claim 10 wherein the level of protein is measured by contacting the protein with a molecule which selectively binds to Pax 2 protein.

12. (original) A method according to claim 11 wherein the selective binding molecule is an antibody or fragment or derivative thereof or an antibody-like molecule.

13. (original) A method according to claim 11 or 12 wherein the selective binding molecule comprises a detectable label.

14. (original) A method according to claim 10 wherein the level of Pax 2 is measured by selectively assaying its activity in the sample.

15. (currently amended) A method according to any ~~one of claims 1 to 14~~ of claims 1, 2 or 3 wherein the sample is a sample of the tissue in which prostate cancer is suspected or in which prostate cancer may be or has been found, or contains cells from said tissue.

16. (original) A method according to claim 15 wherein the sample is any one of urine, semen, blood or lymphatic circulation.

17. (currently amended) ~~Use of~~ A method of diagnosing prostate cancer comprising administering an agent which is capable of use in determining the level of Pax 2 protein or nucleic acid in a sample in the manufacture of a reagent for diagnosing prostate cancer.

18. (currently amended) ~~Use according to~~ The method of claim 17 wherein the agent is a nucleic acid which selectively hybridises to Pax 2 nucleic acid.

19. (currently amended) ~~Use according to~~ The method of claim 18 wherein the agent is a molecule which selectively binds to Pax 2 protein.

20. (currently amended) ~~Use according to~~ The method of claim 19 wherein the agent is useful in selectively assaying the activity of Pax 2 protein.

21. (cancel)

22. (cancel)

23. (currently amended) A kit ~~of parts useful~~ for diagnosing prostate cancer comprising an agent which is capable of use in determining the level of Pax 2 protein or nucleic acid in a sample and a control sample wherein the control sample may be a negative control not comprising a detectable amount of Pax 2 nucleic acid or protein, or it may be a positive control comprising a detectable amount of Pax 2 nucleic acid or protein.

24. (original) A method of treating prostate cancer comprising the step of administering to the patient an agent which selectively prevents the function of Pax 2.

25. (original) A method according to claim 24 wherein the agent prevents the expression of Pax 2.

26. (original) A method according to claim 24 wherein the agent inhibits the activity of Pax 2.

27. (original) A method according to claim 26 wherein the agent is an antisense molecule.

28. (original) A method according to claim 26 wherein the agent is a ribozyme.

29. (currently amended) ~~Use of~~ A method of treating prostate cancer comprising administering an agent which selectively prevents the function of Pax 2 ~~in the manufacture of a medicament for treating prostate cancer~~.

30. (original) A genetic construct a nucleic acid encoding a molecule capable of preventing the function of Pax 2 expressed in a prostate cell.

31. (original) A genetic construct according to claim 30 adapted for delivery to a human prostate cell.

32. (original) A genetic construct according to claim 31 wherein the adaptation allows delivery to a prostate cancer cell.

33. (currently amended) A genetic construct according to claim 31 ~~or 32~~ comprising means to selectively deliver the nucleic acid to a prostate cancer cell.

34. (currently amended) A genetic construct according to ~~any one of claims 30 to 33~~ claim 30 comprising means to selectively express the nucleic acid encoding a molecule in a prostate cancer cell.

35. (cancel)

36. (currently amended) A pharmaceutical composition comprising a genetic construct ~~according to any one of claims 30 to 34~~ comprising a nucleic acid encoding a molecule capable of preventing the function of Pax 2 expressed in a prostate cell and a pharmaceutically acceptable carrier.

37. (currently amended) ~~Any novel method of diagnosing prostate cancer substantially as described herein, preferably with reference to one or more of the examples~~ The method of claim 2 wherein the step of determining whether the sample contains a level of Pax 2 protein associated with prostate cancer is carried out using western blotting.

38. (cancel)